

in line 8, replace ". In particular, the sounds are thereby" with –, particularly where these sounds are–;

in line 10, replace "[1]" with –I. Daubechies, "Ten Lectures on Wavelets", Saim Verlag, 1992, ISBN 0-89871-274-2, Ch. 5.1, pp. 129-137–;

5 in line 12, replace ". A" with –, resulting in a–;

in line 13, cancel ", respectively,", and cancel "thereby";

in line 14, cancel "ensues", and cancel "English art term:";

in line 16, replace "US-A-5528725" with –U.S. Patent No. 5,528, 725–;

in line 18, before "EP", insert –European Patent–;

10 above line 21, insert

--SUMMARY OF THE INVENTION--;

replace lines 24-25 with

-- This object is achieved by a method for determining spectral speech characteristics in a spoken expression, comprising the steps of: a) digitizing the expression; b) wavelet transforming the digitized expression; and c) defining speaker-specific characteristics based on different transformation stages of the wavelet transformation. –;

15

in line 26, replace "A method" with –The invention provides a method–;

and

20 in line 27, cancel "is recited in the scope of the invention".

On page 2:

in line 1, cancel "thereby";

in line 2, after the last "filter", insert –,–;

in line 3, cancel ", respectively,";

25 in line 5, cancel ", respectively,";

in line 7, replace "whereby" with –where–;

in line 8, after "i.e.", insert –,–;

in line 13, cancel "thereby";

in line 14, cancel "comprised therein";

in line 15, after "i.e.", insert --;
in line 18, cancel "comprised therein";
in line 22, cancel "comprised therein";
in line 23, replace "be defined in" with --is defined such--; and
5 in line 25, replace "passes" with --pass parts--.

On page 3:

in line 3, after the first "as", insert --a--;
in line 5, after "without", insert --a--;
in line 6, after "as", insert --a--;
10 in line 13, replace "as" with --is--;
in line 23, replace "a0" with --a)--; and
in line 27, cancel "thereby--.

On page 4:

in line 8, after "example", insert --,--;
15 in line 9, cancel "comprised therein";
in line 11, replace "Furthermore" with --Further--;
in line 12, replace "representation" with --representations--, and before the
last "the", insert --so--;

in line 14, before "can", insert --so they--;
20 in line 16, replace "-- loss-free" with --without loss--;
in line 17, replace "Further" with --Furthermore--;
in line 18, replace "recited" with --provided--;
in line 19, replace "digitalized" with --digitized--;
replace line 24 with

25 -- Advantageous embodiments include adding a step to the inventive
method of implementing a windowed transformation of the digitalized expression
into a frequency domain before the wavelet transformation, which may be
implemented with a fast Fourier transformation. An advantageous embodiment

may also include a step of determining a low-pass part and a high-pass part of a signal to be transformed in each stage of the wavelet transformation. The high pass part can be subdivided into a real part and an imaginary part.

In the inventive method, the wavelet transformation may include a plurality of transformation stages, a last transformation stage of the plurality of transformation stages supplying a constant part of the expression in a repeated low-pass filtering corresponding to the plurality of transformation stages.

Speaker-specific characteristics may be determined by: a basic frequency of the spoken expression; spectral envelope; and/or a huskiness of the spoken expression, and individual speaker-specific characteristics may be adapted to provide a natural sounding concatenation of speech sounds.

An inventive method may be provided implementing the above method for determining spectral speech characteristics comprising a step of selecting those speech sounds from a predetermined data set that assure a natural sounding concatenation of speech sounds on a basis of individual the spectral speech characteristics.

Finally, the object of the invention may be achieved with an arrangement for determining spectral speech characteristics in a spoken expression, comprising a processor unit that is configured to digitize the expression, wavelet transform the digitized expression, and define speaker-specific characteristics on a basis of different transformation stages of the wavelet transformation. --

above line 25, insert

--BRIEF DESCRIPTION OF THE DRAWINGS --;

cancel line 27;

in line 28, before "a wavelet", insert --is a graph illustrating--; and
in line 29, before "a wavelet", insert --is a graph illustrating--.

On page 5:

in line 1, before "a cascaded", insert --is a block diagram illustrating--;

in line 3, replace "Figure 4" with --Figures 4A-4F are graphs illustrating

frequency spectrums of-;

in line 4, before "steps", insert -are pictorial diagrams illustrating the-
above line 5, insert

--DESCRIPTION OF THE PREFERRED EMBODIMENTS--;

5 replace line 6 with -where-;

in line 13, before "imaginary", insert -the-;

in line 17, replace "whereby" with -where-;

in line 19, after "high-pass", insert -part/filter-, after "low-pass", insert
-part/filter-, and replace ".", with -, producing-; and

10 in line 20, replace "In" with -in-, and replace "thereby occurs, i.e." with
-, i.e.,-.

On page 6:

in line 2, replace "304" with -302-;

in line 3, after "pass", insert -part-;

15 in line 4, replace "Im 1" with -Im1-; and

in line 6, after all instances of "pass", insert -part-.

On page 7:

in line 2, replace "Mi" with -Min-;

in line 3, replace "Said" with -These-;

20 in lines 4-5, replace "thereby of particular significance" with
-particularly significant-;

in line 8, cancel "thereby";

in line 9, cancel "comprised";

in line 10, replace "whereby" with -where-;

25 in line 12, after "With", insert -a-;

in line 16, after "shows" insert -the-;

in lines 17-18, replace ", whereby" with -in which-;

in line 19, replace "representatives" with -representations-;